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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,934	09/20/2000	Clifford A. McCarthy	10003832-1	8556

7590 07/27/2005

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
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EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/665,934

Applicant(s)

MCCARTHY ET AL

Examiner

Adnan M. Mirza

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/25/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,10-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,10-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2,4-8,10-15,17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richek et al (U.S. 5,257,387) and Allen et al (U.S. 5,634,072).

As per claims 1,8,15 Richek disclosed a method for allocating system resources among groups having entitlement values and maximum limits comprising: allocating a computer system resource to active groups according to respective entitlement values; determining an excess entitlement allocated to inactive groups; and reallocating the excess entitlement values to the active groups according to the optimal distribution for each active group (col. 23, lines 15-32), wherein optimal values reallocated to the active groups are in proportion to the respective entitlement values (col. 2, lines 25-37 & col. 11, lines 42-57).

However Richek did not disclose in detail creating a list of active groups in an increasing order; calculating an optimal distribution of excess entitlement values to be reallocated to each active group by traversing once the list of active groups in the increasing order; calculating a scaling

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ration for each group; sorting active groups by their scaling ratios; without exceeding a maximum limit for each of the active groups, and wherein a total resource allocated to each of the active groups does not exceed a maximum limit for each of the active groups.

In the same field of endeavor Allen disclosed the real time maximum number of connection for a named structure type (e.g, lock, list, cache) is calculated at the first connect as the minimum of the formatted number from policy (col.22, lines 40-44). The installation is given the flexibility to determine a maximum value based on the customer environment since limiting the number of connections to coupling facility structure will lessen the amount of the space used by the function data set. This value will be used to reserve total function data set for all coupling facility structures in the active policy and will be rounded to the next highest unit of 8 (col. 22, lines 51-58). Allen also disclosed the list monitor table is a sequence of objects, called list-monitor-table entries is determined when the table is created and is equal to the maximum number of list-structure-users (col. 15, lines 51-54).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated calculating a scaling ration for each group; sorting active groups by their scaling ratios; without exceeding a maximum limit for each of the active groups, whereby the system resource reallocated to each of the active groups are scaled up from each group's entitlement value by a fixed ratio up to the groups maximum limit as taught by Allen in the method of Richek to introduce management delays in related to Management of resource reuse and resource allocation.

4. As per claims 2 Richek-Allen disclosed wherein the maximal values for inactive groups is set equal to zero (Allen, col. 37, lines 27-36).

5. As per claims 4,10,17 Richek-Allen disclosed wherein the scaling ratio is a ratio between the maximum limit and the entitlement value (Allen, col. 58, lines 52-67).

6. As per claims 5,11,18 Richek-Allen disclosed wherein the step of reallocating comprises: determining whether unprocessed groups can scale by the scaling ratio of a current group without exhausting unallocated resources (Allen, col. 88, lines 35-47); and if the unprocessed groups can scale without exhausting the unallocated resources, then setting the maximal value of the current group equal to the maximum limit of the current group (Allen, col. 37, lines 27-36).

7. As per claims 6,12,19 Richek-Allen disclosed wherein the step of reallocating further comprises: if the unprocessed groups cannot scale without exhausting the unallocated resources, then scaling the unprocessed groups by the unallocated resources (Allen, col. 27, lines 65-67 & col. 28, lines 1-7).

8. As per claims 7,13,20 Richek-Allen disclosed further comprising processing the groups individually as sorted by the scaling ratios (Allen, col. 58, lines 53-67), whereby the groups having a higher maximum limit relative to their entitlement values are processed after groups having a lower maximum limit relative to their entitlement values (Allen, col. 37, lines 27-36).

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9. As per claim 14 Richek-Allen disclosed wherein the step of reallocating further comprises, if a portion of the excess entitlement remains unallocated after processing, all active groups, reallocating the portion to one or more active or inactive groups (Allen, col. 88, lines 35-47).

***Response to Arguments***

Applicant's arguments filed 04/25/2005 have been fully considered but they are not persuasive.

Applicant's arguments are as follows.

10. Applicant argued that prior art did not disclose "calculating a scaling ratio for each group; sorting active groups by their scaling ratios and reallocating the excess entitlement to the active groups in proportion to the respective entitlement values. Whereby the system resource reallocated to each of the active group's maximum limit.

As to applicant's argument Allen disclosed the installation is given the flexibility to determine a maximum value based on the customer environment since limiting the number of connections to coupling facility structure will lessen the amount of the space used by the function data set. This value will be used to reserve total function data set for all coupling facility structures in the active policy and will be rounded to the next highest unit of 8 (col. 22, lines 51-58). Allen also disclosed the list monitor table is a sequence of objects, called list-monitor-table entries is

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determined when the table is created and is equal to the maximum number of list-structure-users (col. 15, lines 51-54).

11. Applicant argued that prior art did not disclose or suggest “traversing the list of active groups once; and performing a finite and bounded set of operations after a single pass at each group to reallocate the excess entitlement to the active groups in proportion to the respective entitlement values”.

As to applicant’s argument Richek disclosed the function Statement Block includes the description of the function or functions that the board performs, along with the common system resources required by the function. Because several functions can be integrated onto a single board, the CFG file can include several function statement blocks. A different function statement would be used for different functional areas on a single board, such as printer control, serial control, or video control (col. 11, lines 42-46). One ordinary skill in the art at the time of invention would consider a single board as a single pass in terms of their functionality, The both single board and single pass provide single path or route to provide single point to manage or command different groups of resources.

12. Applicant argued that prior art did not disclose, “creating a list of active groups in an increasing order; calculating an optimal distribution of excess entitlement values to be reallocated to each active group by traversing once the list of active groups in the increasing order”.

As to applicant's argument Allen disclosed, "The real time maximum number of connection for a named structure type (e.g, lock, list, cache) is calculated at the first connect as the minimum of the formatted number from policy (col.22, lines 40-44). The installation is given the flexibility to determine a maximum value based on the customer environment since limiting the number of connections to coupling facility structure will lessen the amount of the space used by the function data set. This value will be used to reserve total function data set for all coupling facility structures in the active policy and will be rounded to the next highest unit of 8 (col. 22, lines 51-58)".

### ***Conclusion***

**13. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.

15. The examiner can normally be reached on Monday to Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin Wallace can be reached on (571)-272-6159. The fax for this group is (703)-746-7239.

16. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-746-7239 (For Status Inquiries, Informal or Draft Communications, please label

"PROPOSED" or "DRAFT");

(703)-746-7239 (For Official Communications Intended for entry, please mark "EXPEDITED PROCEDURE"),

(703)-746-7238 (For After Final Communications).

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17. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-3900.

Any response to a final action should be mailed to:

BOX AF

Commissioner of Patents and Trademarks Washington, D.C.20231

Or faxed to:

Hand-delivered responses should be brought to 4<sup>th</sup> Floor Receptionist, Crystal Park II,  
2021 Crystal Drive, Arlington, VA 22202.

*AM*

Adnan Mirza

Examiner

*[Signature]*  
JASON CARROLL  
Primary US 2145